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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,552	12/05/2003	Ian Rippke	42339-198344	7984
26694	7590	01/21/2005	EXAMINER	
VENABLE, BAETJER, HOWARD AND CIVILETTI, LLP P.O. BOX 34385 WASHINGTON, DC 20043-9998			NGUYEN, JOSEPH H	
			ART UNIT	PAPER NUMBER
			2815	

DATE MAILED: 01/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/727,552

Applicant(s)

RIPPKE ET AL.

Examiner

Joseph Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 25-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 25-33 is/are allowed.
- 6) ☒ Claim(s) 1-3,5 and 8 is/are rejected.
- 7) ☒ Claim(s) 4,6,7 and 9-14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Kanazawa et al.

Regarding claim 1, Kanazawa et al discloses on figure 5C a device comprising a layer 1 of a first conductivity type; a first transistor 5 disposed in the layer; a body contact 78 disposed in the layer; and a resistance region 91 disposed in the layer 1 between the first transistor and the body contact region to substantially isolate the first transistor from the body contact region, the resistance region having a resistivity higher than a resistivity of the layer.

Regarding claim 2, Kanazawa et al discloses on figure 5C a second transistor 3 disposed in the layer 1 wherein the second transistor is disposed on the same side of the resistance region as the body contact region 78.

Regarding claim 3, Kanazawa et al discloses on figure 5C the body contact region 78 is adapted to be coupled to ground and the first conductivity type is p type.

Regarding claim 8, Kanazawa et al discloses on figure 5C the resistance region 91 occupies substantially an entire cross sectional area of the layer between the first transistor and the body contact region.

Claims 1-3 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Hsu et al.

Regarding claim 1, Hsu et al discloses on figure 6 a device comprising a layer 3 of a first conductivity type; a first transistor disposed in the layer; a body contact 10 disposed in the layer; and a resistance region (FOX) disposed in the layer 3 between the first transistor and the body contact region to substantially isolate the first transistor from the body contact region, the resistance region having a resistivity higher than a resistivity of the layer.

Regarding claim 2, Hsu et al discloses on figure 6 a second transistor disposed in the layer 3 wherein the second transistor is disposed on the same side of the resistance region as the body contact region 15.

Regarding claim 3, Hsu et al discloses on figure 6 the body contact region 15 is adapted to be coupled to ground and the first conductivity type is p type.

Regarding claim 5, Hsu et al discloses on figure 6 a substrate 1, the layer being disposed on top of the substrate 1.

***Allowable Subject Matter***

Claims 25-33 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: The reference (s) of record do not teach or suggest, either singularly or in combination at least the limitation of "a layer of a first conductivity type formed directly on a semiconductor substrate; a first transistor disposed in the layer; a body contact region disposed in the layer" for claim 25.

Claims 4, 6-7, 9-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

Applicant's arguments filed on 12/08/2004 have been fully considered but they are not persuasive.

With respect to claim 1, applicant argues that neither Kanazawa et al. nor Hsu et al. discloses, "a resistance region disposed in the layer between the first transistor and the body contact region to substantially isolate the first transistor from the body contact region" as now recited in amended claim 1. However, Kanazawa et al. clearly discloses on figure 5C a resistance region 91 disposed in the layer 1 between the first transistor (on the left side) and the body contact region 78 to substantially isolate the first transistor from the body contact region. Also, Hsu et al. discloses on figure 6 a resistance region (fox) disposed in the layer 3 between the first transistor and the body

contact region 10 to substantially isolate the first transistor from the body contact region. Note that the term "isolated" is not limited to "electrically isolated" and thus is interpreted as "physically isolated" hereby.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Nguyen whose telephone number is (571) 272-1734. The examiner can normally be reached on Monday-Friday, 7:30 am- 4:30 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Thomas can be reached on (571) 272-1664. The fax phone number for

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the organization where this application or proceeding is assigned is (703) 872-9306 for regular communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JN  
January 12, 2005

  
ALLAN R. WILSON  
PRIMARY EXAMINER